



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/670,673
Filing Date: September 25, 2003
Appellant(s): WACHTMANN, BRUCE K.

Mr. John L. Conway, reg. No. 48,241
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

This is in response to the remand by the Board filed on 4/17/2008 for further consideration of a rejection.

Pursuant to the remand under 37 CFR 41.50(a)(1) by the Board of Patent Appeals and Interferences on 4/17/2008 **for further consideration of a rejection**, a supplemental Examiner's Answer under 37 CFR 41.50(a)(2) is set forth below.

The application has been remanded by the Board to provide the examiner with the opportunity to respond to the argument below that was presented in the reply brief but not in the principal brief.

The appellants argue:

If Montague's silicon nitride insulating layer **22** is replaced by an oxide layer, as taught by Kim or Lee, the etchant material used to dissolve the sacrificial layers **30, 32** will also dissolve the oxide in insulating layer **22**. Dissolution of insulating layer **22** yields a non-functional device because this layer **22** will de-bond from the substrate allowing the conductive layer **24** to short with the substrate. Thus, claim 1 is non-obvious in view of Montague/Kim/Lee because the process taught by the combination of references will not form a properly functioning MEMS device.

The examiner responds:

If Montague's silicon nitride layer **22** were to be replaced with the same oxide material from which the sacrificial layers are made, then as the appellants say, the etchant material used to dissolve the sacrificial layers **30, 32** will also dissolve the oxide of insulating layer **22**. However, Appellants' arguments are based on the false premise that the oxide of Kim and Lee is the same oxide from which the sacrificial material layers of Montague are formed. Montague clearly teaches that the sacrificial layers are made of silicon oxide or silicate glasses (see, *e.g.*, col.5/ll.64-66 and col.6/ll.57-60), whereas Kim and Lee differently teach aluminum oxide. See, *e.g.*, Kim: col.4/ll.15-20 and Lee: col.2/ll.55-60). Furthermore, Kim clearly teaches that aluminum oxide has an etching selectivity of about 5 with respect to silicon dioxide. In other words, the sacrificial layers of Montague would etch five times faster than the oxide layer of Kim and Montague. See, *e.g.*, col.3/ll.25-26 and col.4/ll.63-66. Thus, the etching material

used to dissolve the sacrificial layers **30, 32** of Montague will not dissolve the oxide material suggested by Kim and Lee, as the appellants are arguing above.

Conclusion

The appellant must within **TWO MONTHS** from the date of the supplemental examiner's answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the rejection for which the Board has remanded the proceeding:

(1) **Reopen prosecution.** Request that prosecution be reopened before the examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit, or other evidence. Any amendment, affidavit, or other evidence must be relevant to the issues set forth in the remand or raised in the supplemental examiner's answer. Any request that prosecution be reopened will be treated as a request to withdraw the appeal. See 37 CFR 41.50(a)(2)(i).

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. If such a reply brief is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened under 37 CFR 41.50(a)(2)(i). See 37 CFR 41.50(a)(2)(ii).

Extensions of time under 37 CFR 1.136(a) are not applicable to the **TWO MONTH** time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Art Unit: 2814

A Technology Center Director or designee has approved this supplemental examiner's answer by signing below:

/Marcos D. Pizarro/
Primary Examiner, Art Unit 2814

Appeals Conferee:

/Ricky L. Mack/
Supervisory Patent Examiner, Art Unit 2873

/Wael M Fahmy/
Supervisory Patent Examiner, Art Unit 2814